What is claimed is:

1. An image forming apparatus comprising:

an image carrier configured to allow a latent image to be formed thereon;

a hollow, cylindrical developer carrier provided with a plurality of stationary magnetic poles thereinside; and

a metering member configured to limit an amount of a developer, which is made up of a toner and a magnetic carrier and is deposited on said developer carrier, to pass;

wherein one of said plurality of magnetic poles comprises a doctor pole facing said metering member; and

wherein a surface of said developer carrier on which the developer is deposited by a magnetic force of one of said plurality of magnetic poles is moved in a circumferential direction to conveyed said developer to a developing zone where said developer faces a surface of said image carrier via a metering position where said developer faces said metering member, causing said developer forming a magnet brush to contact said surface of said image carrier and develop a latent image formed on said surface of said image carrier in an electric field;

said image forming apparatus further comprising stationary layer angle setting means for setting,

assuming that a developer layer, staying at a position upstream of said metering member in a direction in which said developer carrier conveys the developer, consists of a stationary layer in which said developer is not replaced and a flowing layer in which said developer is replaced, that an angle between, as seen from an axis of said developer carrier, an upstream edge portion, in said direction, of an end portion of said metering member, which faces said developer carrier, and a position where an end of said stationary layer upstream of, but remote from said edge portion, in said direction is located is a stationary layer angle θd, and that an angle between, as seen from said axis of said developer carrier, said edge portion and a position where a doctor-upstream pole just upstream of said doctor pole in said direction is located is an inter-pole angle $\theta 1$,

said stationary layer angle θd in a preselected range relative to said inter-pole angle $\theta 1$.

2. The apparatus as claimed in claim 1, wherein said preselected range is:

$$0 \leq \theta d \leq \theta 1/3$$

3. The apparatus as claimed in claim 2, wherein assuming that the developer layer has a maximum thickness

of r in a radial direction of said developer carrier and that said stationary layer has a maximum thickness of r1 in said radial direction, r and r1 are related as:

$$0 \leq r1/r \leq 1/3$$

4. The apparatus as claimed in claim 1, wherein at least part of said metering member comprises a magnetic member.

5. The apparatus as claimed in claim 4, wherein part of said magnetic member other than part, which adjoins the surface of said developer carrier in the radial direction of said developer carrier, is covered with a nonmagnetic member.

6. The apparatus as claimed in claim 1, wherein one of said poles comprises a scoop-up pole for magnetically scooping up the developer onto the surface of said developer carrier, and wherein at least one conveying pole intervenes between said scoop-up pole and said doctor pole in a direction in which the surface of said developer carrier moves, conveying the developer scooped up toward the metering position.

7. The apparatus as claimed in claim 1, wherein the toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester

resin with an urea-bond ability and a colorant, in an organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

8. The apparatus as claimed in claim 1, wherein the toner has a weight-mean grain size Dv of 4.0 μm or above, but 8.0 μm or below, and has a ratio Dv/Dn of said weight-mean grain size Dv to a number-mean grain size Dn of 1.0 or above, but 1.25 or below.

9. The apparatus as claimed in claim 1, wherein the toner has a mean circularity of 0.90 or above, but below 1.00.

10. The apparatus as claimed in claim 1, wherein the carrier has a volume-mean grain size of 25 μm or above, but 55 μm or below.

11. The apparatus as claimed in claim 1, wherein said image carrier is photoconductive and allows the latent image to be formed thereon by being uniformly exposed and then exposed imagewise, and wherein there holds a relation:

$$0 < |VD| - |VB| < |VD - VL| < 400 \text{ (V)}$$

where VD denotes a potential deposited on said image carrier by uniform charging, VL denotes a potential after exposure, and VB denotes the bias for development.

12. The apparatus as claimed in claim 1, wherein the bias comprises a DC bias.

13. In a method of producing a toner, said toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester resin with an urea-bond ability and a parting agent comprising a wax, in an organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

14. A developing device comprising:

a developer chamber storing a developer made up of a toner and a carrier including a coating layer, which contains at least a binder resin and an acrylic resin, covering a surface of an individual carrier core;

a developer carrier configured to convey the developer from said developer chamber to a developing zone; and

a metering member configured to meter an amount of the developer deposited on said developer carrier;

wherein the amount of the developer deposited on said developer carrier is one-half of a total amount of the developer present in said developing device or below.

15. The device as claimed in claim 14, wherein the coating layer contains inorganic fine grains.

16. The device as claimed in claim 14, wherein the coating layers contains inorganic fine grains with treated surfaces.

17. The device as claimed in claim 14, wherein the carrier has a weight-mean grain size of 20 μm to 60 μm.

18. The device as claimed in claim 14, wherein the toner has a volume-mean grain size of 4 μm to 8 μm.

19. The device as claimed in claim 18, wherein the toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester resin with an urea-bond ability and a parting agent comprising a wax, in an organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

20. The device as claimed in claim 14, wherein the toner has a ratio of a volume-mean grain size to a number-mean grain size of 1.2 or less.

21. The device as claimed in claim 20, wherein the

toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester resin with an urea-bond ability and a parting agent comprising a wax, in an organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

22. The device as claimed in claim 14, wherein grains of the toner have a circularity of 0.95 or above.

23. The device as claimed in claim 22, wherein the toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester resin with an urea-bond ability and a parting agent comprising a wax, in an organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

24. The device as claimed in claim 14, wherein at least part of said metering member is formed of a magnetic material.

25. In a process cartridge removably mounted to a body of an image forming apparatus and comprising, among an image carrier, charging means for charging said image

carrier, developing means for developing a latent image formed on said image carrier and cleaning means for removing a developer deposited on said image carrier, at least one means including said developing means, said developing means comprising:

a developer chamber storing a developer made up of a toner and a carrier including a coating layer, which contains at least a binder resin and an acrylic resin, covering a surface of an individual carrier core;

a developer carrier configured to convey the developer from said developer chamber to a developing zone; and

a metering member configured to meter an amount of the developer deposited on said developer carrier;

wherein the amount of the developer deposited on said developer carrier is one-half of a total amount of the developer present in said developing device or below.

26. An image forming apparatus comprising:

image forming means for forming a latent image on an image carrier; and

developing means for developing the latent image to thereby produce a corresponding toner image;

said developing means comprising:

a developer chamber storing a developer made up of a toner and a carrier including a coating layer, which

contains at least a binder resin and an acrylic resin, covering a surface of an individual carrier core;

a developer carrier configured to convey the developer from said developer chamber to a developing zone; and

a metering member configured to meter an amount of the developer deposited on said developer carrier;

wherein the amount of the developer deposited on said developer carrier is one-half of a total amount of the developer present in said developing device or below.

27. In a method of developing a latent image formed on an image carrier with toner by causing a developer carrier, which faces said image carrier and accommodates a magnet therein, to support a developer made up of a toner and a magnetic carrier supporting said toner and convey said developer to a developing zone between said developer carrier and said image carrier, assuming that an apparent coating ratio M of a surface of said developer carrier coated with said developer is, in a zone upstream of said developing zone in a direction of rotation of said developer carrier, expressed as:

$$M = \alpha A + \beta \ (\%)$$

where α denotes a coefficient representative of the

coating ratio, β denotes a value determined by a powder characteristic of said developer for an apparent coating ratio calculated with A = 0, said coating ratio M is between 90 % and 120 %.

28. The method as claimed in claim 27, wherein the coating ratio α is 1.6 or below.

29. The method as claimed in claim 27, wherein a gap for development between said developer carrier and said image carrier is selected to satisfy, in the developing zone, a relation:

$$Gp \times \rho r \leq 0.7$$

where ρr denotes an apparent density of the developer, and Gp denotes a gap for development (cm).

30. The method as claimed in claim 27, wherein the toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester resin with an urea-bond ability and a colorant, in an organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

31. The method as claimed in claim 27, wherein the toner has a weight-mean grain size of 4 μm to 8 μm and a grain size distribution satisfying a relation:

$$Dv/Dn \leq 1.25$$

where Dv denotes the weight-mean grain size, and Dn denotes a number-mean grain size.

32. The method as claimed in claim 27, wherein the toner has a mean circularity of 0.90 or above, but below 1.00.

33. The method as claimed in claim 27, wherein the carrier, mixed with the toner, has a volume-mean grain size of 25 μm to 55 μm.

34. The method as claimed in claim 27, wherein a bias for development comprises a DC bias.

35. In a developing device for developing a latent image formed on an image carrier with toner by causing a developer carrier, which faces said image carrier and accommodates a magnet therein, to support a developer made up of a toner and a magnetic carrier supporting said toner and convey said developer to a developing zone between said developer carrier and said image carrier, assuming that an apparent coating ratio M of a surface of said developer carrier coated with said developer is, in a zone upstream

of said developing zone in a direction of rotation of said developer carrier, expressed as:

$$M = \alpha A + \beta \ (\%)$$

where α denotes a coefficient representative of the coating ratio, β denotes a value determined by a powder characteristic of said developer for an apparent coating ratio calculated with $A = 0$, said coating ratio M is between 90 % and 120 %.

36. The device as claimed in claim 35, wherein the surface coating ratio M is 1.6 or below.

37. The device as claimed in claim 35, wherein a gap for development between said developer carrier and said image carrier is selected to satisfy, in the developing zone, a relation:

$$Gp \times \rho r \leq 0.7$$

where ρr denotes an apparent density of the developer, and Gp denotes a gap for development (cm).

38. The device as claimed in claim 35, wherein the toner is produced by dissolving or dispersing a toner composition, which contains at least a modified polyester resin with an urea-bond ability and a colorant, in an

organic solvent to thereby prepare a dissolution or a dispersion, dispersing said dissolution or said dispersion in a water-based medium to thereby effect polyaddition reaction, and then removing said solvent and rinsing.

39. The device as claimed in claim 35, wherein the toner has a weight-mean grain size of 4 μm to 8 μm and a grain size distribution satisfying a relation:

$$Dv/Dn \leq 1.25$$

where Dv denotes the weight-mean grain size, and Dn denotes a number-mean grain size.

40. The device as claimed in claim 35, wherein the toner has a mean circularity of 0.90 or above, but below 1.00.

41. The device as claimed in claim 35, wherein a carrier, mixed with the toner, has a volume-mean grain size of 25 μm to 55 μm.

42. An image forming apparatus comprising:

a photoconductive image carrier configured to allow a latent image to be formed thereon;

a charger configured to uniformly charge said image carrier;

a developing device configured to develop the latent

image to thereby produce a toner image; and

an image transferring device configured to transfer the toner image from said image carrier to a recording medium;

wherein assuming that an apparent coating ratio M of a surface of a developer carrier included in said developing device and coated with said developer is, in a zone upstream of a developing zone in a direction of rotation of said developer carrier, expressed as:

$$M = \alpha A + \beta \ (\%)$$

where α denotes a coefficient representative of the coating ratio, β denotes a value determined by a powder characteristic of a developer for an apparent coating ratio calculated with A = 0, said coating ratio M is between 90 % and 120 %.

43. The apparatus as claimed in claim 42, wherein there holds a relation:

$$0 < |VD| - |VB| < |VD - VL| < 400 \ (V)$$

where VD denotes a potential deposited on said image carrier by said charger, VL denotes a potential after exposure, and VB denotes a bias for development.

44. The apparatus as claimed in claim 42, wherein a bias for development comprises a DC bias.

45. In a process cartridge removably mounted to a body of an image forming apparatus and comprising at least one of an image carrier, a charger, a developing device and a cleaning device, said developing device comprising:

a photoconductive image carrier configured to allow a latent image to be formed thereon;

a charger configured to uniformly charge said image carrier;

a developing device configured to develop the latent image to thereby produce a toner image; and

an image transferring device configured to transfer the toner image from said image carrier to a recording medium;

wherein assuming that an apparent coating ratio M of a surface of a developer carrier included in said developing device and coated with said developer is, in a zone upstream of a developing zone in a direction of rotation of said developer carrier, expressed as:

$$M = \alpha A + \beta \ (\%)$$

where α denotes a coefficient representative of the coating ratio, β denotes a value determined by a powder

characteristic of a developer for an apparent coating ratio calculated with A = 0, said coating ratio M is between 90 % and 120 %.